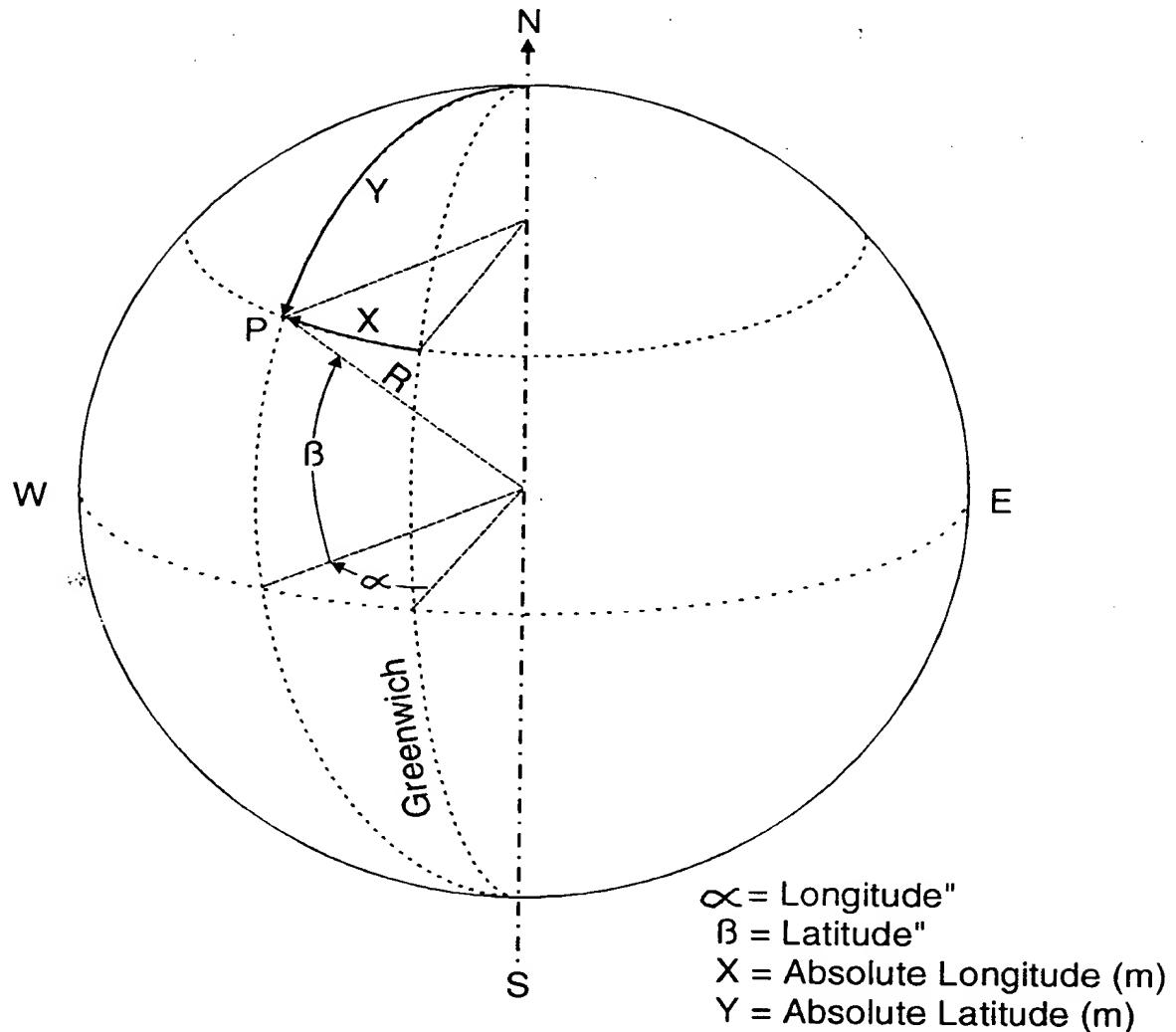


Absolute Geographic Coordinates (AGCs)



Absolute Geographic Coordinates (AGCs):

A) For a Point Situated at (α "W, B "N):

$$X = \alpha \times (2.500/81) \times \cos (B \times 90/324.000) \text{ m}$$

$$Y = 10.000.000 - B \times (2.500/81) \text{ m}$$

B) For a Point Situated at (α "E, B "N):

$$X = 1.296.000 - \alpha \times (2.500/81) \times \cos (B \times 90/324.000) \text{ m}$$

$$Y = 10.000.000 - B \times (2.500/81) \text{ m}$$

C) For a Point Situated at (α "W, B "S):

$$X = \alpha \times (2.500/81) \times \cos (B \times 90/324.000) \text{ m}$$

$$Y = 10.000.000 - B \times (2.500/81) \text{ m}$$

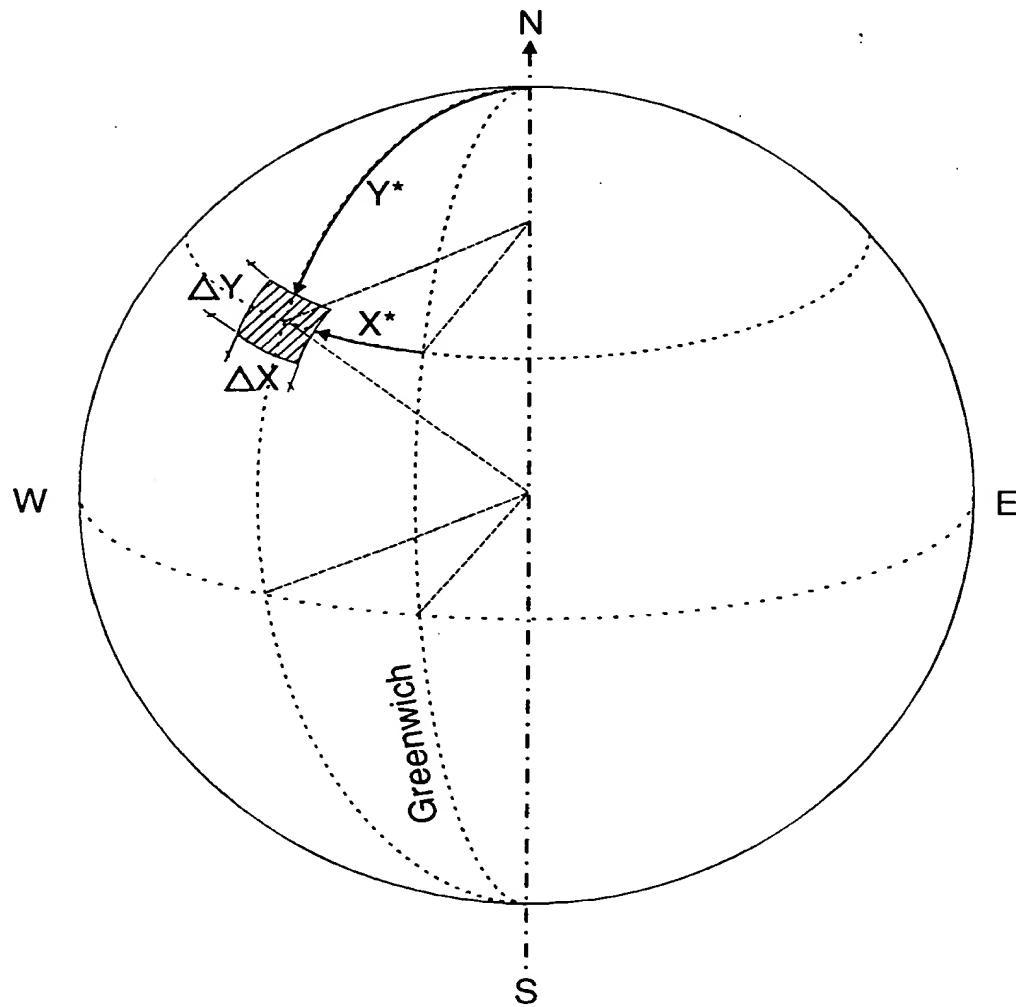
D) For a Point Situated at (α "E, B "S):

$$X = 1.296.000 - \alpha \times (2.500/81) \times \cos (B \times 90/324.000) \text{ m}$$

$$Y = 10.000.000 - B \times (2.500/81) \text{ m}$$

FIG.1

Fuzzy AGCs Determine Geodesic Squares



Given a Point of the Earth with AGCs:

$$X = x_7 x_6 x_5 x_4 x_3 x_2 x_1 x_0$$

$$Y = y_7 y_6 y_5 y_4 y_3 y_2 y_1 y_0$$

Then, the "FUZZY" AGCs:

$$X^* = x_7 x_6 x_5 x_4 x_3^*$$

$$Y^* = y_7 y_6 y_5 y_4 y_3^*$$

Specify the Geodesic Square that contains all AGC1 (X,Y), such that:

$$x_7 x_6 x_5 x_4 x_3 000 \leq X \leq x_7 x_6 x_5 x_4 x_3 999; \Delta X = 1000\text{m}$$

$$y_7 y_6 y_5 y_4 y_3 000 \leq Y \leq y_7 y_6 y_5 y_4 y_3 999; \Delta Y = 1000\text{m}$$

FIG.1

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Belgrade

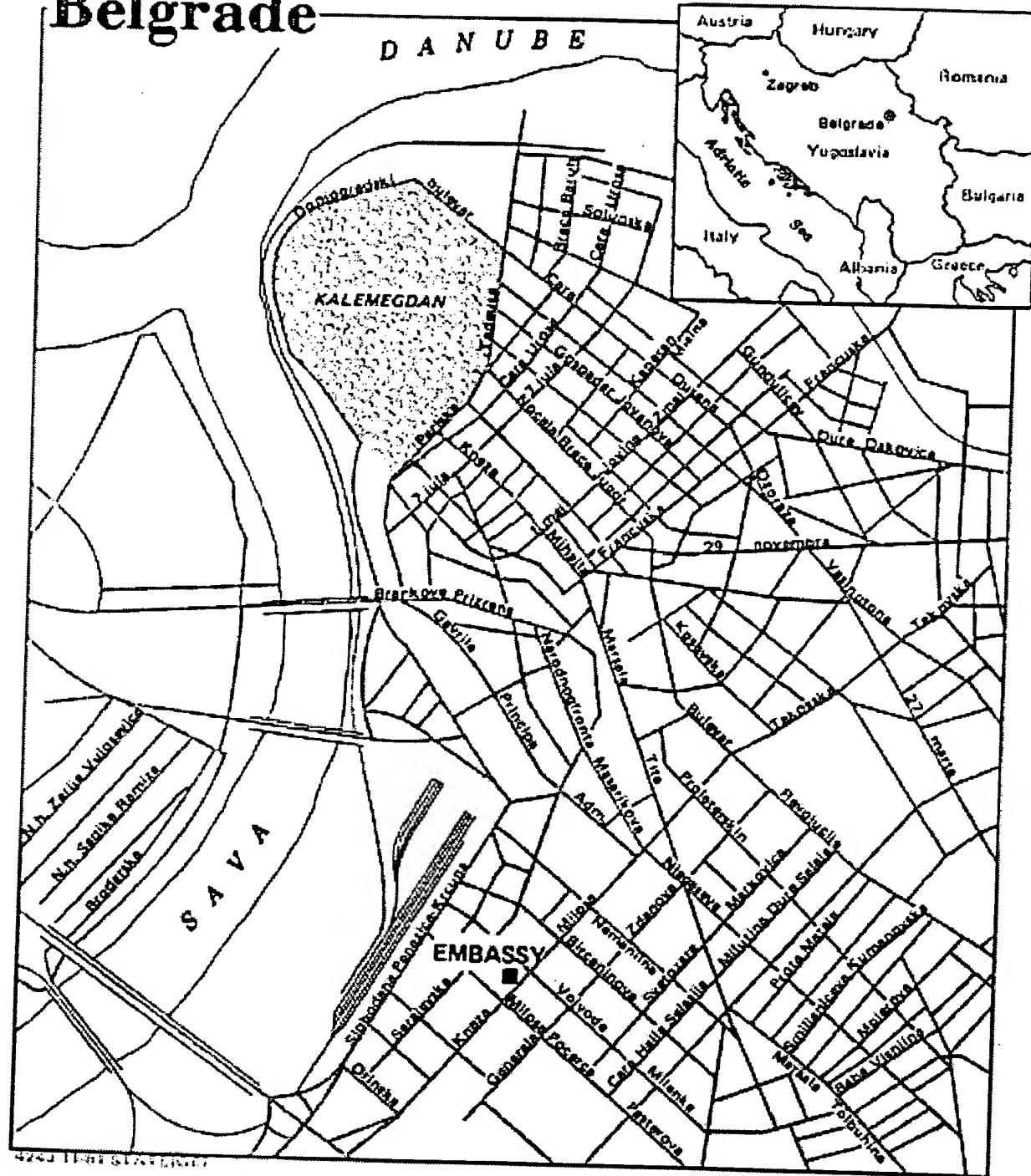


Fig. 3: Conventional Digital Map

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Belgrade

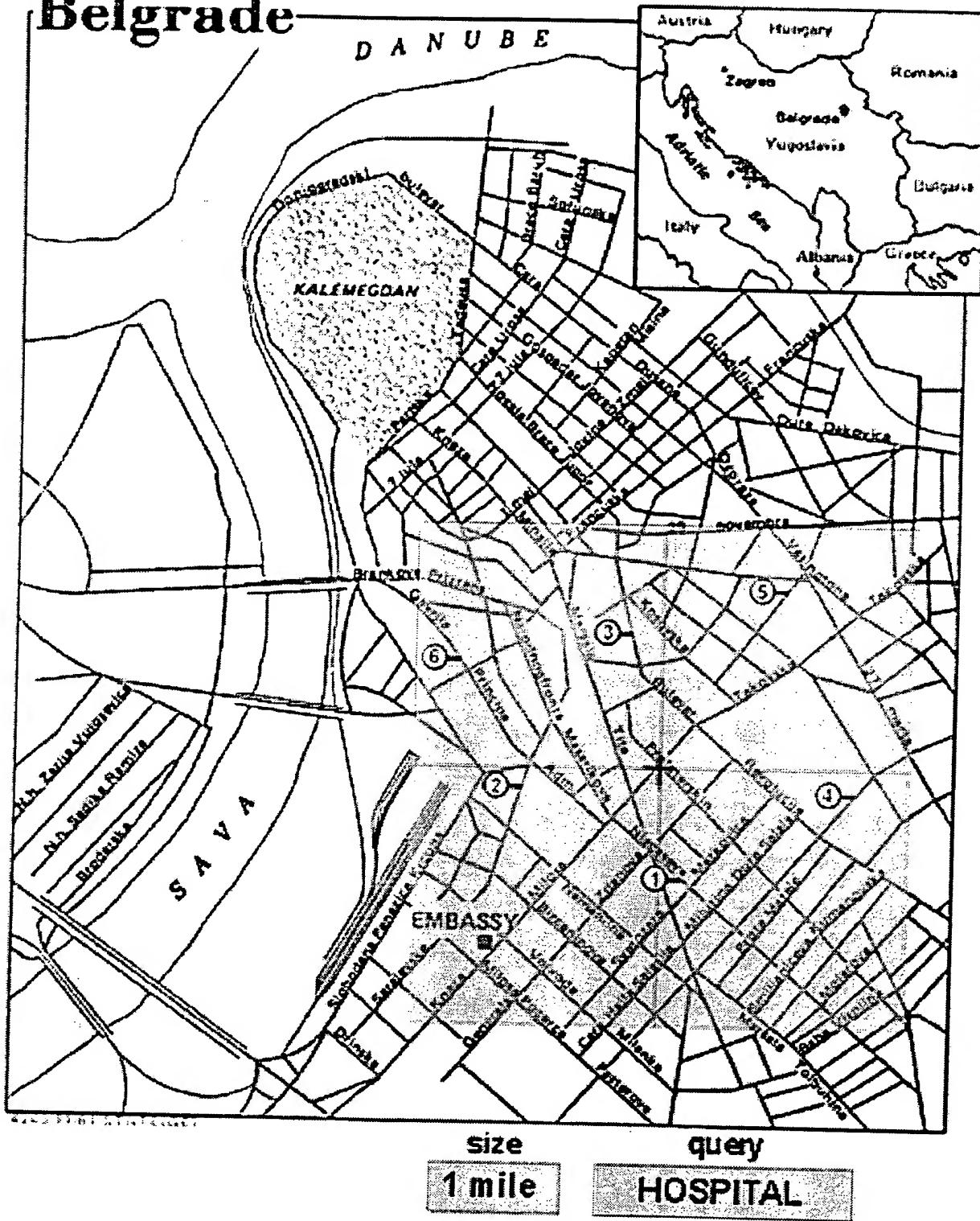


Fig. 4: A typical query

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095523811 031300

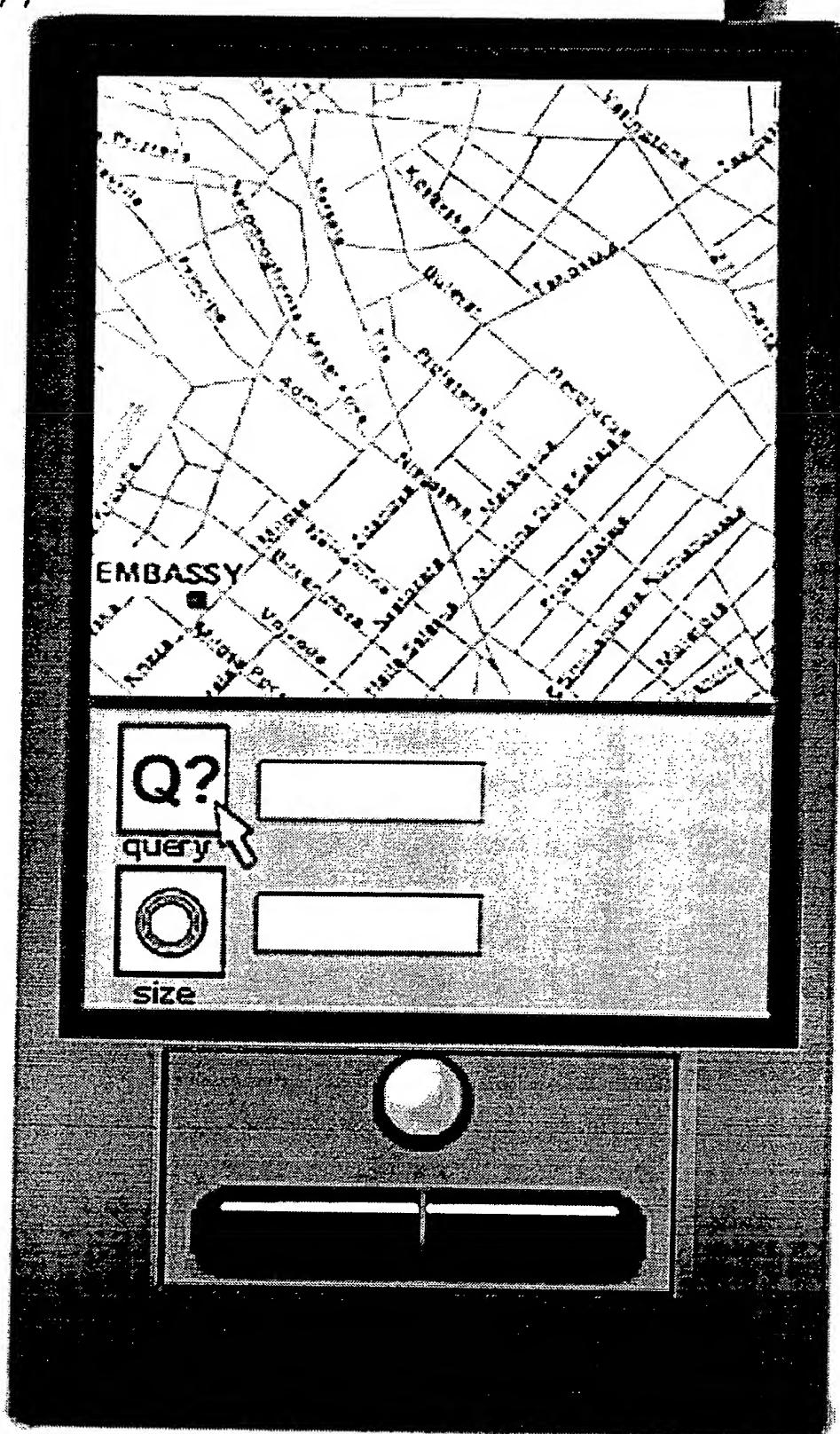


Fig. 5: Personal Information Locator (PIL)

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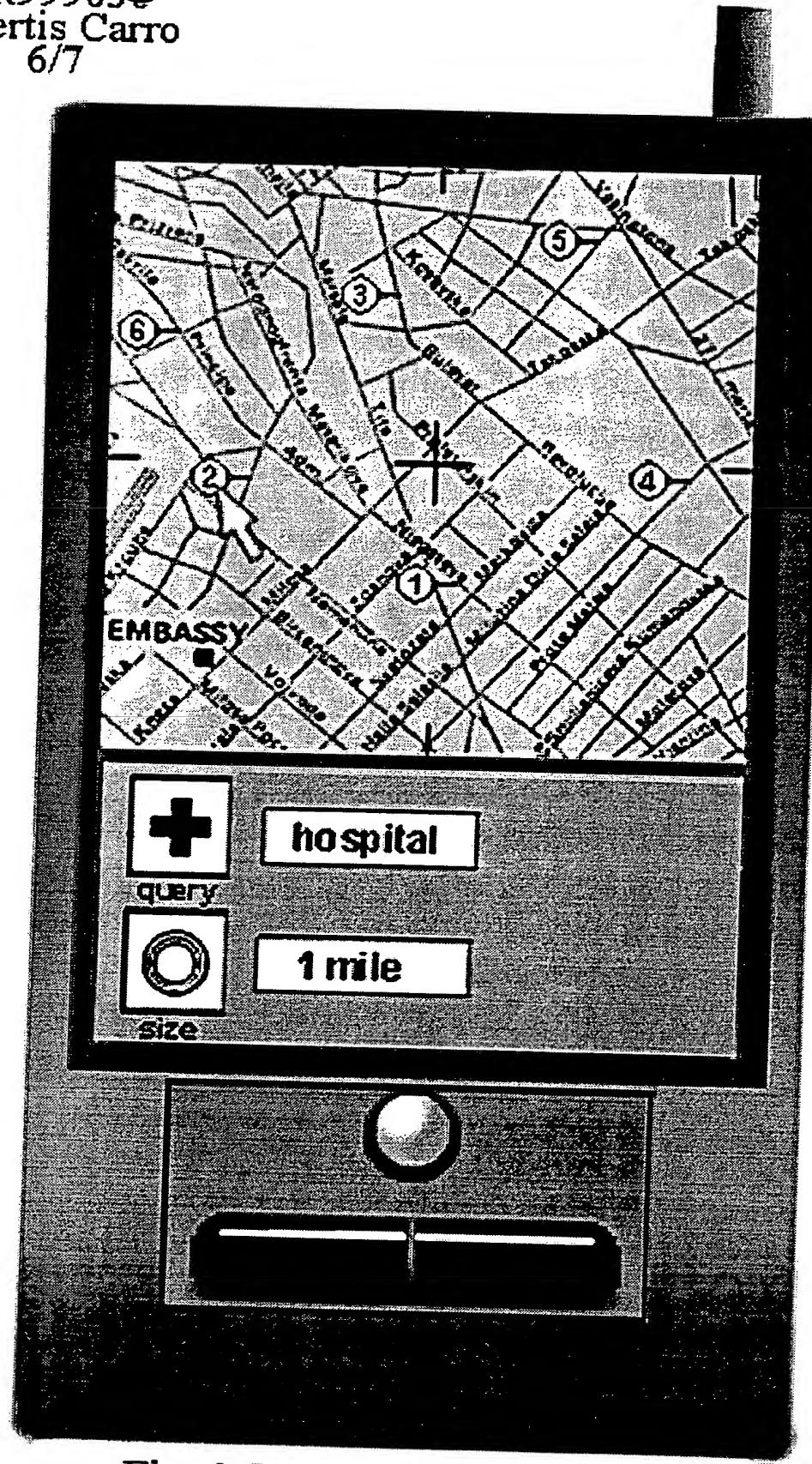


Fig. 6: Iconic map of the query

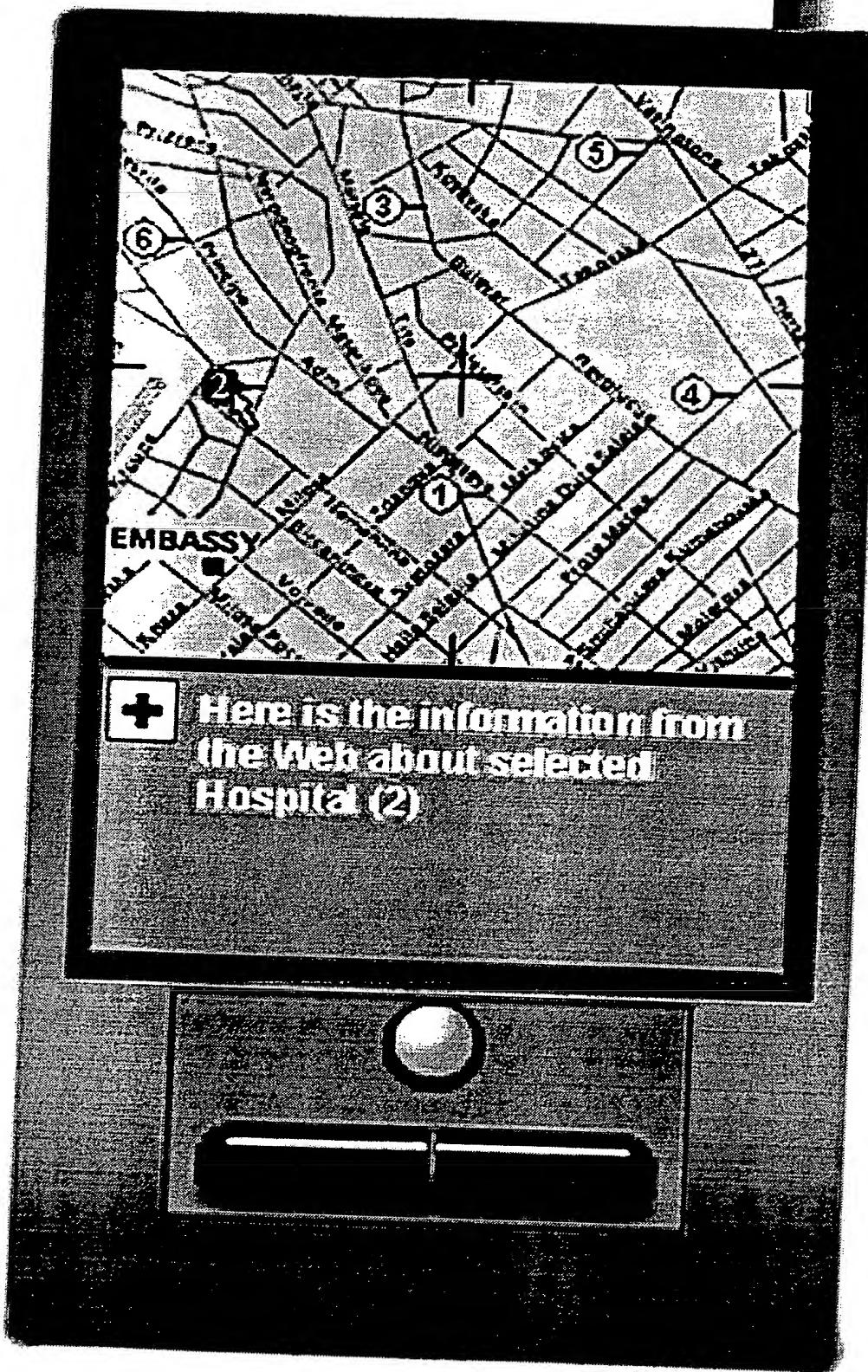


Fig. 7: Information from selected hyperlink icon